Entrepreneurship and Health Innovations  
Spring 2019

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Office Hours by appointment

Wednesdays, 3:00pm to 5:30pm  
EER Innovation Center Conference Room, 2.508

COURSE DESCRIPTION
This course introduces foundational entrepreneurial/innovation concepts and provides hands on experience including identifying/developing ideas, conducting market validation, understanding business models, assessing competition, and learning skills for effectively working in teams. This practicum prepares students to participate in startups by focusing on gaining the knowledge and leadership skills for effectively developing and managing health innovations.

Teams develop business plan elements based on a variety of health/life-science patents and technologies. Using a flipped classroom and approach, in-class time focuses on applying readings/videos to team-based business planning and highly interactive in-class discussions. Each learning module includes sessions with guest speakers, bringing real world experiences that allow students to engage with entrepreneurs, as well as learn and practice entrepreneurial skills. The course follows a practicum format where students learn the fundamentals of the health innovations, best practices for integrating market analysis into research programs, evaluating business plan elements, leading entrepreneurial teams, understanding intellectual property, and participating in funding pitch presentations.

TO THE STUDENT
This syllabus is designed to help you navigate this course and answer questions related to all requirements needed to successfully pass this course. Ask questions as they arise. Do not wait until the final week or the day an assignment is due. If you are having difficulties with the course, talk to the instructor. This will enable both you and the instructor to create a plan and implement it successfully.

I. INTRODUCTION
This seminar course focuses on the technical, regulatory, and commercial hurdles that face new health innovations, from early research to commercial development, as they navigate the development pipeline. This elective course is designed for graduate students across all disciplines. Students will learn strategies for health innovation development with the goal of understanding the pathway to commercialization. At the conclusion of the course, it is intended that a student will have gained exposure to research planning, business planning, and funding strategies.

II. COURSE OBJECTIVE
The objective of this course is to introduce students to various topics within the life cycle of the drug, device, and digital health development processes and create an awareness of how new products and services are developed, approved, and marketed through discussions, reading, case studies, and investigation.
Classroom Expectations
This course is designed and structured to provide you with the BEST exposure to health innovation and entrepreneurship in the country and are committed to ensuring that you get the best education to reflect this standard of excellence.

You will be asked to take responsibility to acquire information (facts, principles, concepts) by reading and watching videos independently prior to class. Then, you will actively do things in class; working in a learning-centered classroom. You will be guided to construct deeper meaning at an application/problem-solving level.

Classroom Protocol
This class is run using the protocol of a project team approach for developing an innovation. This means full respect for people’s input, while still challenging people in a professional manner. This also means if you have the floor, you are concise, you present new or compelling material, and you back your position up with facts, not opinions.

Participating in a project team meeting or board meeting means arriving on time, being fully engaged, no cell phone interruptions, and expectations of being asked to participate at any time.

III. COURSE POLICIES
Prerequisites
Graduate standing or receive special permission from the instructors. Undergraduate students in pre-healthcare fields (e.g., pre-Pharmacy, pre-Medicine, pre-Dental, pre-Nursing) with some research experience are encouraged to contact the instructor for permission to enroll.

Attendance
It is expected that you attend every class session. Class will begin promptly as scheduled. All absences must be approved in advance, in order to be considered officially excused. Each unexcused absence will result in a 5% deduction from the overall course grade.

Textbook
The required materials for this course will be supplied electronically to you at no cost. Any materials for this course will be available via Canvas or by email.

Required electronics
A device that can communicate with the internet and access Canvas to allow taking in-class quizzes and writing a report using word processing and data entry. (Suggested: PC or Mac based laptop; wireless internet capability; battery life to support 2+ hours of usage; iPad or tablet to support 3+ hours of usage. Assume that there are NO power outlets in our classroom to use.

Note Taking Services
Commercial note taking services are not allowed in this class. If you miss a class, please work with the instructors to review missed material. Please review Canvas course portal prior to class. Required pre-class preparation materials and assignments will be posted or provided electronically prior to class.

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259, http://diversity.utexas.edu/disability.
UT Honor Code
“The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect towards peers and community.” The honor code and video can be accessed here.

Religious Holy Days
A student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible, so that arrangements can be made to complete an assignment within a reasonable time after the absence. Students and instructors who have questions or concerns about academic accommodations for religious observance or religious beliefs may contact the Office of Inclusion and Equity.

Behavioral Concerns Advice Line (BCAL)
If you are worried about someone who is acting differently or concerned about someone’s behavior, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual’s behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal

IV. ASSIGNMENTS AND GRADING
My philosophy is that each student begins the class with 100%: it’s your responsibility to maintain this standing.

COURSE GRADING ALLOCATION
60% Attendance and class participation
10% Peer-team evaluations
10% Quizzes
10% Assignments
10% Power Pitch

GRADING SYSTEM
Final course grade will be calculated according to the following scale:
93-100 A  90-92 A-
87-89 B+  83-86 B  80-82 B-
77-79 C+  73-76 C  70-72 C-
66-69 D+  63-65 D  60-62 D-
>60 F

All final grades will be posted on Canvas in compliance with University policy. No grades will be given in response to telephone or email inquiries.

EXAMINATIONS
There are no exams or re-examinations for this course. In the event that the student misses an assignment, the student must inform the instructor prior to the start of the class period in which the
assignment is due or prior to the due date of the assignment. It is the instructor’s prerogative to decide if the cause of missing the assignment is excused or unexcused.

Participation will be graded on how active the student is in class (e.g., asking and/or answering questions, participating in discussion, demonstrating knowledge of the material covered in the pre-class readings).

V. STANDARDS OF CONDUCT
Students at the University are expected to obey and conduct themselves in accordance with the penal and civil statutes of the local, state, and federal government and the Rules and Regulations of the Board of Regents of the University of Texas System, University regulations, and administrative rules, and to observe standards of conduct appropriate for an academic institution. § 11-101(a), Institutional Rules on Student Services and Activities.

STANDARDS OF ACADEMIC INTEGRITY
A fundamental principle for any educational institution, academic integrity is highly valued and seriously regarded at The University of Texas at Austin, as emphasized in the standards of conduct. More specifically, you and other students are expected to "maintain absolute integrity and a high standard of individual honor in scholastic work" undertaken at the University (Academic Integrity website)uteca. This is a very basic expectation that is further reinforced by the University's Honor Code. At a minimum, you should complete any assignments, exams, and other scholastic endeavors with the utmost honesty, which requires you to:
* Acknowledge the contributions of other sources to your scholastic efforts;
* Complete your assignments independently unless expressly authorized to seek or obtain assistance in preparing them;
* Follow instructions for assignments and exams, and observe the standards of your academic discipline; and
* avoid engaging in any form of academic dishonesty on behalf of yourself or another student.

SCHOLASTIC DISHONESTY
In promoting a high standard of academic integrity, the University broadly defines scholastic dishonesty—basically, all conduct that violates this standard, including any act designed to give an unfair or undeserved academic advantage, such as:
* Cheating  * Plagiarism  * Collusion  * Unauthorized Collaboration  * Falsifying Academic Records  * Misrepresenting Facts (e.g., providing false information to obtain an extended deadline for an assignment, or even gain an unearned financial benefit)
* Any other acts (or attempted acts) that violate the basic standard of academic integrity (CONDUCT PROCESSES AND PROCEDURES
As authorized by the Board of Regents of The University of Texas System, the Office of the Dean of Students is responsible for the administration of student discipline, which is implemented by Student Conduct and Academic Integrity.

VI. CAMPUS SAFETY & SECURITY
The University of Texas at Austin takes campus safety very seriously and continues to evaluate opportunities for improved safety for our students, faculty, staff and visitors. Students can request a ride from UTPD during the dates/times SURE Walk is not operating by calling UTPD at 512-471-4441 and pressing 9.
### Entrepreneurship & Health Innovations Course Schedule

#### Course Schedule

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<thead>
<tr>
<th>DATE &amp; TOPICS</th>
<th>ACTIVITIES / SPEAKERS</th>
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| 23 Jan Module A     | - Quiz 1 (pre-class readings, videos)  
                      - Introductions  
                      - Course structure & expectations  
                      - Team formation  
                      - Project Selections  
                      - TEAMS: Project Description  
                      Assignment: 3-5 sentence Project Description – problem, approach, benefits |
| 30 Jan Module B     | - Quiz 2  
                      - TEAMS: Report out on Project Description  
                      - Design Thinking and Designing for Your Customer  
                      - Prototyping (Scott Evans)  
                      - DT & Digital Applications  
                      - TEAMS Customer Discovery WITH CNS Class (Lisa M.’s class)  
                      - Assignment (our class and CNS students): Identify customer segments and questions; complete 10-15 interviews |
| 6 Feb Module C      | - Quiz 3  
                      - TEAMS: Report out on Customer Discovery interviews  
                      - Value Proposition Canvas Business Model Canvas overview  
                      - Market Analysis  
                      - TEAMS: Value Proposition Canvas: Market & Competitive Analyses  
                      Assignment: Competitive Analysis; Begin Value Proposition Canvas |
| 13 Feb Module D     | - Quiz 4  
                      - TEAMS: Report out on Competitive Analysis  
                      - IP and Competition  
                      - TEAMS: IP assessment, IP fences, Competitive Analysis  
                      Assignment: Value Proposition Canvas |
| 20 Feb Module E     | - Quiz 5  
                      - TEAMS: Report out on Value Proposition Canvas  
                      - Case Study: Drug-diagnostic - Vermillion  
                      - Management’s Roles  
                      - BOD Review  
                      - TEAMS: Team, Project Pivots  
                      Assignment: update Value Proposition Canvas, Business Model Canvas |
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<tr>
<th>Date</th>
<th>Module</th>
<th>Events</th>
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<tr>
<td>27 Feb</td>
<td>Module F</td>
<td>• Quiz 6&lt;br&gt;• Devices&lt;br&gt;• TEAMS: Building the canvas, gap analysis, structuring your business plan</td>
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<tr>
<td>6 Mar</td>
<td>Module G</td>
<td>• Innovation Information basics, financials and more</td>
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<tr>
<td>13 Mar</td>
<td>Module H</td>
<td>• The Entrepreneur’s Journey&lt;br&gt;• TEAMS: pitch deck prep&lt;br&gt;Cam Houser: 3DStartup1234</td>
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<tr>
<td>20 Mar</td>
<td>* SPRING BREAK *</td>
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<tr>
<td>27 Mar</td>
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<td>Power Pitch Prep Session</td>
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<tr>
<td>3 Apr</td>
<td>Power Pitch Competition</td>
<td>Team Power Pitches&lt;br&gt;Course surveys&lt;br&gt;• Celebratory Gathering at Dr. J’s</td>
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<tr>
<td>Date</td>
<td>Module</td>
<td>Content</td>
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| 28 Feb | Module G | Funding You Innovation  
- Innovation Information basics, financials and more  
- TBD, innovator, entrepreneur, the future of learning: she makes things happen all around you |
| | Pre-Class | Commuter's Guide  
- Ch 15: Building Your Financials  
- Ch 16: Raising the Cash |
| | In Class | Financial strategies and other resources |
| 7 Mar | Module H | Product Pathways  
- The Entrepreneur’s Journey  
- Matt Winkler: Founder, Ambion, Asuragen, Mirna Therapeutics  
- TEAMS: pitch deck prep |
| | Pre-Class | Commuter's Guide  
- Ch 8: Building Your Business Plan  
- How to Write a Business Plan |
| | In Class | Assignment |
| 14 Mar | * SPRING BREAK * | |
| 28 Mar | |
| | Team Power Pitches | |
| | Course surveys | |
| | Celebratory Gathering at Dr. J’s | |
| 3 Apr | Power Pitch Competition | |

A number of entrepreneurs and innovators have agreed to serve as advisors/mentors over the semester. Contact information will be provided upon request.

Louise Epstein, Managing Director, Innovation Center, Cockrell School of Engineering  
Scott Evans, Director, Longhorn Maker Studio, Cockrell School of Engineering  
Lisa McDonnal, ATI, Assistant Program Manager, Biosciences  
Ryan McKeeman, CEO & co-founder, The Sound Floor  
Mark Sanders, ATI, program Manager, Transportation/Mobility/Water  
Nishi Vishwanathan, M.D., Director, Texas Health Catalyst, Dell Medical School